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NATURAL HISTORY NOTES FROM JIGALONG

IV. FROGS

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Lindgren (1960) reported the collection of *Hyla rubella* Gray, *Limnodynastes spenceri* Parker, and *Notaden nichollsi* Parker, from Jigalong after rain in April and May 1959. Subsequently after summer rains it has been possible for him to collect from breeding congresses on Jigalong and Salem Creeks specimens of the following species:—*Cyclorana platycephalus* (Günther), *C. cultripes* Parker, *Limnodynastes spenceri*, *Neobatrachus sutor* Main, and *Hyla rubella*. The number of specimens and size data are shown in Table 1.

TABLE 1.—FROGS COLLECTED AT JIGALONG, DECEMBER 5 AND 6, 1959.

Species	Sex	Number of Specimens	Mean Snout-vent length mm.	Standard Deviation
<i>Hyla rubella</i>	♂	14	35.6	1.7
	♀	5	33.4	1.2
<i>Cyclorana platycephalus</i>	♂	18	57.6	4.7
	♀	7	60.5	5.2
<i>Cyclorana cultripes</i>	♂	12	43.2	1.0
	♀	3	46.3	0.4
<i>Neobatrachus sutor</i>	♂	3	41.6	2.6
<i>Limnodynastes spenceri</i>	♂	82	42.0	2.5
	♀	24	43.7	2.1

BIOLOGY

Collecting took place on two succeeding nights in December 1959. On the 5th, 48 points of rain fell before 1800 hrs. and a further 34 points fell before collecting started at 0015 hrs. on the morning of the 6th. Both Jigalong and Salem Creeks flowed after this rain, but on the morning of the 6th frogs were breeding in congress in Salem Creek only. Air and water temperatures were not taken. Attention was directed to them by the volume of their calls, these being heard at the Mission, roughly 400 yards from the creek.

Salem Creek is the smaller of the two creeks, averaging about 15 ft. across with banks up to 6 ft. high and a bed consisting of

fine red sand and mud. The banks are well wooded and small clay flats holding water up to 18 in. deep in places, in which the frogs were also breeding, occur nearby.

Jigalong Creek is much wider, at the collecting area being about 90 ft. across with a 6 ft. high bank on the east side and a sloping bank on the west side. Being close to the native camp most timber has been cut out for firewood and only a few river gums remain. The creek bed consists of coarse sand with little matrix, scattered throughout with small stones.

On December 6, from 0015 hrs. until 0315 hrs. and 1930 hrs. until 2145 hrs., frogs were collected indiscriminately so that an idea of relative abundance could be gained. Claspings pairs were captured and tied together by a label about their legs.

During collecting it was apparent that various species showed definite preferences in calling position.

1. *Cyclorana platycephalus* called mainly from the shallows, but rested on the bottom. The call is a long drawn-out "maw-w-w-w-w."

2. *Limnodynastes spenceri* called while floating, usually within three feet of the bank and occasionally while resting on the bottom. Some individuals called while floating between branches of creekside vegetation hanging into the water. The call is a rapid "ho ho ho ho ho ho," with a soft "o" as in "cot."

3. *Neobatrachus sutor* called from the water's edge, sitting only a few inches from the water. The call is a penetrating "tap tap tap" easily heard above the volume of other calls.

4. *Hyla rubella* called out of the water on the bank, usually with its body vertical, head up, but occasionally at various angles, rarely with its head pointing to the water. The call is a long rattling call similar to that of *C. eultripes* but much more uneven and lower in pitch. (Only a few individuals of this species were seen swimming, most being on the bank in rock or tree crevices.)

5. *Cyclorana eultripes*, no notes were made of the call position. Its call is a high pitched even "maa-a-a-a-a" somewhat like that of *H. rubella*.

One individual *Hyla* was heard calling from a rain water tank 200 yards from Jigalong Creek and was timed on two occasions, as shown in Table 2.

TABLE 2.—PARTICULARS OF CALL OF ONE *HYLA RUBELLA* RECORDED ON TWO SEPARATE OCCASIONS.

Date	Time of recording	Mean number of trills per call	Range	Duration of call, seconds	Range	Interval between calls, seconds	Range
7.12.59	2005	116.5	21-476	144.4	23 to 590	42.25	3 to 162
8.12.59	1945	93	16-221	114.0	18 to 284	72	3 to 255

Snout-vent lengths, in millimetres, of all elapsing pairs are shown in Table 3.

TABLE 3.—CLASPING PAIRS TAKEN FROM THE BREEDING CONGRESS SHOWING THE USUALLY LARGER SIZE OF THE FEMALE IN EACH PAIR.

C. platycephalus	♂	59.8	60.5	62.1	52.5				
	♀	63.5	62.4	63.4	49.7				
C. cultripes	♂	42.7	42.8						
	♀	46.5	46.6						
L. spenceri	♂	42.3	39.2	37.5	39.6	41.5	42.3	40.9	40.4
	♀	44.0	40.6	43.6	40.0	42.0	40.9	43.8	41.3
						39.0	42.7	42.7	44.8
						46.5	40.3	44.0	43.7

Measurements of all species were plotted on histograms. These tend to follow a normal distribution. No class is excessively abundant or rare and so it has not been possible to discern either age or size classes reflecting periods of good or poor recruitment to the population.

DISCUSSION

From Table 1 it is apparent that *L. spenceri* is the commonest frog in the locality and it is of interest that it was also the commonest frog reported in the earlier paper (Lindgren, *op. cit.*). Nevertheless it is apparent that the earlier collection was not representative of the unexpectedly rich frog fauna of the area. Main *et al.* (1959) showed the Jigalong area as being occupied by four genera. The present collections indicate that five genera and six species occur in the vicinity. Some of the faunal richness is undoubtedly due to the presence of the water courses as all, except *Notaden nicholli* and *Neobatrachus*, are more or less restricted to water courses. An additional species which might be expected from the locality is *N. centralis* Parker.

Of the species reported from Jigalong *H. rubella* is wide spread. *C. platycephalus* and *L. spenceri* occur as far south as 30 miles north of Menzies. *N. nicholli* and *C. cultripes* must be near their southern limit. *N. sutor* has not been recorded further north and has not been collected again until south of Menzies.

REFERENCES

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 MAIN, A. R., M. J. LITTLEJOHN, and A. K. LEE. 1959. Ecology of Australian Frogs, pp. 396-411 in *Biogeography and Ecology in Australia* (Monographiae Biologicae, vol. 8).

V. ABORIGINAL FLORA AND FAUNA NAMES

By ERIC LINDGREN.

INTRODUCTION

Three dialect groups of the Western Desert language are represented at Jigalong. These are known among the aborigines themselves at Katatjara, Mantjiltjara and Putitjara, but elsewhere in the great Western Desert region are known by "nicknames" de-